

STATE OF MISSOURI



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: **102008-006** Project Number: 2007-12-068

Parent Company: Archer Daniels Midland Company

Parent Company Address: 1001 North Brush College Road, Decatur, IL 62521

Installation Name: ADM Grain Company - New Madrid Port Rd.

Installation Address: 734 New Madrid County Port Rd., Marston, MO 63866

Location Information: New Madrid County, S20 & 29, T22N, R14E

Application for Authority to Construct was made for:
construction of a grain elevator with 230,000 storage capacity. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required.*

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

OCT 24 2008

EFFECTIVE DATE



DIRECTOR OR DESIGNEE *for Fulk*
DEPARTMENT OF NATURAL RESOURCES

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STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years/18 months from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years/18 months after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the departments' Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

STATE OF MISSOURI



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

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Permit Number: _____ Project Number: 2007-12-068
Parent Company: Archer Daniels Midland Company
Parent Company Address: 1001 North Brush College Road, Decatur, IL 62521
Installation Name: ADM Grain Company - New Madrid Port Rd.
Installation Address: 734 New Madrid County Port Rd., Marston, MO 63866
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 - Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

EFFECTIVE DATE

DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

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Permit No.	
Project No.	2007-12-068

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

ADM Grain Company - New Madrid Port Rd.
New Madrid County, S20 & 29, T22N, R14E

1. Emission Limitation
 - A. ADM Grain Company - New Madrid Port Rd. shall emit less than 15 tons of particulate matter less than ten (10) microns in diameter (PM₁₀) in any consecutive 12 month period from the entire installation.
 - B. ADM Grain Company - New Madrid Port Rd. shall maintain an accurate record of PM₁₀ emitted into the atmosphere from the entire installation. Attachment A or an equivalent form shall be used for this purpose. ADM Grain Company - New Madrid Port Rd. shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.
 - C. ADM Grain Company - New Madrid Port Rd. shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 1.B. indicate that the source exceeds the limitation of Special Condition Number 1.A.
2. Tar and Chip Haul Road(s)
 - A. Maintenance and/or repair of the surfaces will be conducted as necessary to ensure that the physical integrity of the haul roads is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
 - B. ADM Grain Company - New Madrid Port Rd. shall periodically water, wash and/or otherwise clean all of the haul road(s) as necessary to achieve control of fugitive emissions from these areas while the plant is operating

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Permit No.	
Project No.	2007-12-068

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

3. Control Device Requirements - Baghouse
 - A. ADM Grain Company - New Madrid Port Rd shall control emissions from truck receiving operations (EP-01) using a baghouse as specified in the permit application. The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the DNR employees may easily observe them. Replacement filters for the baghouse and drum filters shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
 - B. ADM Grain Company - New Madrid Port Rd shall monitor and record the operating pressure drop across the baghouse and drum filters at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
 - C. ADM Grain Company - New Madrid Port Rd shall maintain an operating and maintenance log for the baghouse and drum filters which shall include the following:
 1. Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 2. Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
4. Control Device Requirements – Oil Suppression
 - A. ADM Grain Company - New Madrid Port Rd shall use a mineral oil suppression system whenever grain drying is in operation (excluding cotton seed and rice) to reduce PM₁₀ emissions from grain drying (EP-02). The mineral oil suppression system shall be operated and maintained in accordance with the manufacturer's specifications.
5. ADM Grain Company - New Madrid Port Rd. shall keep the Sleeve at the end of the spout at all times to reduce PM₁₀ emissions from truck loadout (EP-03)..

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2007-12-068
Installation ID Number: 143-0074
Permit Number:

ADM Grain Company - New Madrid Port Rd.
734 New Madrid County Port Rd.
Marston, MO 63866

Complete: September 22, 2008

Parent Company:
Archer Daniels Midland Company
1001 North Brush College Road
Decatur, IL 62521

New Madrid County, S20 & 29, T22N, R14E

REVIEW SUMMARY

- ADM Grain Company - New Madrid Port Rd. has applied for authority to install a new a grain elevator with 230,000 bushel storage capacity.
- Hazardous Air Pollutant (HAP) emissions are expected from the combustion of natural gas. However, the amount of HAP emissions are insignificant
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment. Subpart DD, *Standards of Performance for Grain Elevators*, does not apply to this installation since the storage capacity of the installation is less than 2.5 million bushels of grain.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) or currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- A baghouse, sleeve, and a mineral oil suppression system are being used to control the PM₁₀ emissions from the equipment in this permit.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM₁₀ are conditioned to de minimis levels
- This installation is located in New Madrid County, an attainment area for all criteria air pollutants.
- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].

- Ambient air quality modeling was not performed since potential emissions of the application are conditioned to de minimis levels.
- Emissions testing is not required for the source.
- No Operating Permit is required for this installation.
- Approval of this permit is recommended with special conditions.

INSTALLATION /PROJECT DESCRIPTION

ADM Grain Company - New Madrid Port Rd. proposes to construct a new grain elevator on New Madrid Port Rd. with a storage capacity of 230,000 bushels. Grain will be received by truck at a maximum hourly rate of 50,000 bushels through truck receiving pits (EP-01). Emissions from the receiving pits will be controlled through a baghouse.

One of the receiving pits will send grain directly to the barge loadout spout (EP-04). The remaining two receiving pits will send grain to the storage bins (EP-05). Prior to shipping, the grain may be dried in a natural gas-fired column grain dryer (EP-02) rated at 55 MMBTU per hour. At this point, emissions from the grain, excluding cotton seed and rice, will be controlled using mineral oil as a suppressant.

From the storage bins, grain will be directed to the truck loadout (EP-03) or the barge loadout. All conveyors and legs will be totally enclosed from the truck receiving pits to the dryer and the truck and barge loadout spouts. The following table lists all equipment at the installation:

Section (5) permit number 032005-001 (project # 2004-09-035) was issued to ADM Grain Company - New Madrid on March 01, 2005. The location of that permit was Section 19 & 20, Township 22N, and Range 14E. Permit 032005-001 is considered expired since it was not constructed within the regulatory timeframe from the issuance date of the permit.

Table 1: List of Equipment at the Installation

Emission Point & Description	Maximum Hourly Design Rate	Emission Factor	Control Device & Control Efficiency
EP-01 Truck Receiving	50,000 bushel/hour	0.0078 pounds/ton	Baghouse (99%)
EP-02 Grain Drying (55 MMBTU/hr natural gas combustion)	5,000 bushel/hour (0.054 MMCF/hour)	0.0550 pounds/ton (7.6 pound/MMCF)	Oil Suppression (70%)
EP-03 Truck Loadout	10,000 bushel/hour	0.0290 pounds/ton	Sleeve (60 %)
EP-04 Barge Loadout	50,000 bushel/hour	0.0040 pounds/ton	N/A
EP-05 Storage Bins	50,000 bushel/hour	0.034 pounds/ton	N/A
EP-06 Haul Roads	See Section 13.2.2 <i>Unpaved Haul Roads</i>		Tar & chip (90%)

New Madrid Port Rd. from the Air Pollution Control Program. The applicant has requested the emissions of PM₁₀ be conditioned to de minimis levels for the entire installation. Therefore, no operating permit is required at this time.

EMISSIONS/CONTROLS EVALUATION

The pollutant of concern is PM₁₀. The emission factors and control efficiencies used in this analysis were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 9.9.1 *Grain Elevators and Processes* (5/98) and Section 13.2.2 *Unpaved Haul Roads* (9/98).

Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year). Since this is a new installation, there are no existing potential or actual emissions. The following table provides an emissions summary for this project.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions	Existing Actual Emissions	Potential Emissions of the Application	New Installation Conditioned Potential
PM ₁₀	15.0	N/A	N/A	211.69	<15.0
SO _x	40.0	N/A	N/A	0.14	N/A
NO _x	40.0	N/A	N/A	23.62	N/A
VOC	40.0	N/A	N/A	1.30	N/A
CO	100.0	N/A	N/A	19.84	N/A
HAPs	10.0/25.0	N/A	N/A	0.45	N/A

N/A = Not Applicable; N/D = Not Determined

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM₁₀ are conditioned to de minimis levels

APPLICABLE REQUIREMENTS

ADM Grain Company - New Madrid Port Rd. shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information, 10 CSR 10-6.110*
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required April 1 for the previous year's emissions.
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin, 10 CSR 10-6.170*
- *Restriction of Emission of Visible Air Contaminants, 10 CSR 10-6.220*
- *Restriction of Emission of Odors, 10 CSR 10-3.090*

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes, 10 CSR 10-6.400*
- *Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating, 10 CSR 10-3.060*

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Samer Al-Shoukhi
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, December 21, 2007, designating Archer Daniels Midland Company as the owner and operator of the installation.
- U.S. EPA document AP-42, Compilation of Air Pollutant Emission Factors, Fifth Edition.
- Southeast Regional Office Site Survey, January 9, 2007

Ms. Miranda Gerard
Environmental Manager
ADM Grain Company - New Madrid Port Rd.
734 New Madrid County Port Rd.
Marston, MO 63866

RE: New Source Review Permit - Project Number: 2007-12-068

Dear Ms. Gerard:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files.

Operation in accordance with these conditions and your new source review permit application is necessary for continued compliance.

The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact Samer Al-Shoukhi, at the departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:sal

Enclosures

c: Southeast Regional Office
PAMS File: 2007-12-068
Permit Number: